What is claimed is:

1. A method of cementing in a subterranean formation comprising the steps of:

providing a well fluid that comprises a base fluid and a portion of hollow particles;

placing the well fluid in a subterranean annulus;

permitting at least a portion of the well fluid to become trapped within the annulus;

providing a cement composition;

placing the cement composition in the annulus; and

permitting the cement composition to set therein.

2. The method of claim 1 wherein the step of permitting at least a portion of the well fluid to become trapped within the annulus occurs after the step of placing the cement composition in a subterranean annulus.

3. The method of claim 2 wherein the step of permitting at least a portion of the well fluid to become trapped within the annulus occurs before the step of permitting the cement composition to set within the subterranean annulus.

4. The method of claim 1 further comprising the step of placing a tracer pill into the annulus.

5. The method of claim 4 wherein the tracer pill comprises a fluorescein dye, a tracer bead, or a mixture thereof.

6. The method of claim 4 wherein the step of placing a tracer pill into the annulus occurs before the step of placing the well fluid in the subterranean annulus.

7. The method of claim 4 further comprising the step of observing the arrival of the tracer pill at a desired location.

8. The method of claim 7 wherein the step of observing the arrival of the tracer pill at a desired location occurs before the step of placing the cement composition in a subterranean annulus.

9. The method of claim 1, wherein the base fluid is an aqueous-based fluid or a nonaqueous-based fluid.

10. The method of claim 9 wherein the nonaqueous-based fluid is selected from the group consisting of: diesel, crude oil, kerosene, an aromatic mineral oil, a nonaromatic mineral oil, an olefin, and a mixture thereof.

11. The method of claim 1 wherein the base fluid is present in an amount sufficient to form a pumpable well fluid.

12. The method of claim 1 wherein the base fluid is present in an amount in the range of from about 20% to about 99% by volume.

13. The method of claim 1 wherein the hollow particles comprise a material that may deform to a desired degree upon exposure to a force.

14. The method of claim 13 wherein the material is a synthetic borosilicate.

15. The method of claim 13 wherein the deformation of the material upon exposure to the force reduces the volume of a hollow particle to a desired degree.

16. The method of claim 1 wherein the hollow particles are present in the well fluid in an amount sufficient to provide a desired amount of expansion volume for an annular fluid.

17. The method of claim 16 wherein the hollow particles are present in the well fluid in an amount in the range of from about 1% to about 80% by volume of the well fluid.

18. The method of claim 1 wherein the well fluid further comprises a gas-generating additive.

19. The method of claim 18 wherein the gas-generating additive is selected from the group consisting of: an aluminum powder and an azodicarbonamide.

20. The method of claim 19 wherein the gas-generating additive is present in the well fluid in an amount in the range of from about 0.2% to about 5% by volume.

21. The method of claim 1 wherein the well fluid further comprises a viscosifier, an oxidizer, a surfactant, a fluid loss control additive, a dispersant, a tracer, or a weighting material.

22. The method of claim 21 wherein the tracer is a fluorescein dye, a tracer bead, or a mixture thereof.

23. The method of claim 1 wherein the well fluid further comprises a silicate, a metasilicate, or an acid pyrophosphate.

24. The method of claim 23 wherein the silicate or metasilicate is present in the well fluid in an amount in the range of from about 2% to about 12% by weight of the well fluid.

25. The method of claim 23 wherein the acid pyrophosphate is present in the well fluid in an amount in the range of from about 1% to about 10% by weight of the well fluid.

26. The method of claim 1 wherein the well fluid comprises sodium silicate, sodium metasilicate, potassium silicate, potassium metasilicate, or sodium acid pyrophosphate.

27. A method of affecting annular pressure buildup in an annulus in a subterranean formation comprising placing within the annulus a well fluid comprising a base fluid and hollow particles, wherein at least a portion of the hollow particles collapse or reduce in volume so as to affect the annular pressure.

28. The method of claim 27, wherein the well fluid is selected from the group consisting of a drilling fluid, a spacer fluid, and a completion fluid.

29. The method of claim 27, wherein the well fluid is a spacer fluid.

30. The method of claim 27, wherein the base fluid is an aqueous-based fluid or a nonaqueous-based fluid.

31. The method of claim 30 wherein the nonaqueous-based fluid is selected from the group consisting of: diesel, crude oil, kerosene, an aromatic mineral oil, a nonaromatic mineral oil, an olefin, and a mixture thereof.

32. The method of claim 27 wherein the base fluid is present in the well fluid in an amount sufficient to form a pumpable well fluid.

33. The method of claim 32 wherein the base fluid is present in the well fluid in an amount in the range of from about 20% to about 99% by volume.

34. The method of claim 27 wherein the hollow particles comprise a material that may deform to a desired degree upon exposure to a force.

35. The method of claim 34 wherein the material is a synthetic borosilicate.

36. The method of claim 34 wherein the deformation of the material upon exposure to the force reduces the volume of a hollow particle to a desired degree.

37. The method of claim 27 wherein the hollow particles are present in the well fluid in an amount sufficient to provide a desired amount of expansion volume for an annular fluid.

38. The method of claim 27 wherein the hollow particles are present in the well fluid in an amount in the range of from about 1% to about 80% by volume of the well fluid.

39. The method of claim 27 wherein the well fluid further comprises a gas-generating additive.

40. The method of claim 39 wherein the gas-generating additive is selected from the group consisting of: an aluminum powder and an azodicarbonamide.

41. The method of claim 39 wherein the gas-generating additive is present in the fluid in an amount in the range of from about 0.2% to about 5% by volume.

42. The method of claim 27 wherein the well fluid further comprises a viscosifier, an oxidizer, a surfactant, a fluid loss control additive, a dispersant, a tracer, or a weighting material.

43. The method of claim 42 wherein the tracer is a fluorescein dye, a tracer bead, or a mixture thereof.

44. The method of claim 27 wherein the well fluid further comprises a silicate, a metasilicate, or an acid pyrophosphate.

45. The method of claim 44 wherein the silicate or metasilicate is present in the well fluid in an amount in the range of from about 2% to about 12% by weight of the well fluid.

46. The method of claim 44 wherein the acid pyrophosphate is present in the well fluid in an amount in the range of from about 1% to about 10% by weight of the well fluid.

47. The method of claim 27 wherein the well fluid comprises sodium silicate, sodium metasilicate, potassium silicate, potassium metasilicate, or sodium acid pyrophosphate.

48. An annular-pressure-affecting well fluid comprising a base fluid and hollow particles, wherein at least a portion of the hollow particles may collapse or reduce in volume so as to affect the pressure in an annulus.

49. The well fluid of claim 48 wherein the base fluid is an aqueous-based fluid or a nonaqueous-based fluid.

50. The well fluid of claim 49 wherein the nonaqueous-based fluid is selected from the group consisting of: diesel, crude oil, kerosene, an aromatic mineral oil, a nonaromatic mineral oil, an olefin, and a mixture thereof.

51. The well fluid of claim 48 wherein the base fluid is present in an amount sufficient to form a pumpable well fluid.

52. The well fluid of claim 48 wherein the base fluid is present in an amount in the range of from about 20% to about 99% by volume.

53. The well fluid of claim 48 wherein the hollow particles comprise a material that may deform to a desired degree upon exposure to a force.

54. The well fluid of claim 53 wherein the material is a synthetic borosilicate.

55. The well fluid of claim 53 wherein the deformation of the material upon exposure to the force reduces the volume of a hollow particle to a desired degree.

56. The well fluid of claim 48 wherein the hollow particles are present in an amount sufficient to provide a desired amount of expansion volume for an annular fluid.

57. The well fluid of claim 48 wherein the hollow particles are present in an amount in the range of from about 1% to about 80% by volume of the well fluid.

58. The well fluid of claim 48 further comprising a gas-generating additive.

59. The well fluid of claim 58 wherein the gas-generating additive is selected from the group consisting of: an aluminum powder and an azodicarbonamide.

60. The well fluid of claim 58 wherein the gas-generating additive is present in the well fluid in an amount in the range of from about 0.2% to about 5% by volume.

61. The well fluid of claim 48 further comprising a viscosifier, an oxidizer, a surfactant, a fluid loss control additive, a dispersant, a tracer, or a weighting material.

62. The well fluid of claim 61 wherein the tracer is a fluorescein dye, a tracer bead, or a mixture thereof.

63. The well fluid of claim 48 further comprising a silicate, a metasilicate, or an acid pyrophosphate.

64. The well fluid of claim 63 wherein the silicate or metasilicate is present in an amount in the range of from about 2% to about 12% by weight of the well fluid.

65. The well fluid of claim 63 wherein the acid pyrophosphate is present in an amount in the range of from about 1% to about 10% by weight of the well fluid.

66. The well fluid of claim 48 further comprising sodium silicate, sodium metasilicate, potassium silicate, potassium metasilicate, or sodium acid pyrophosphate.